

## **Current Government-sponsored Research Initiatives in Digital Libraries**

*Prepared by the White House Office of Science and Technology Policy*

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While there is congressional legislation that would expand government-sponsored research in the area of digital libraries there are also important research initiatives already underway.

"Linking Electronic Libraries" is an Advanced Research Projects Agency (ARPA) project to be carried out over three years by the Corporation for National Research Initiatives (CNRI) in Reston, VA. This is a small prototype of an electronic copyright management system that initially will store and disseminate technical reports in the field of computer science. It will link together Carnegie-Mellon, MIT, Stanford, Cornell, the University of California, ARPA, and the Library of Congress. It will address such issues as electronic submission of documents (security and integrity), storage in an online repository, the digital transfer of rights and permissions, electronic payment, and user interfaces. It is an experiment designed to help lay the groundwork for a national electronic library of scientific and technical information. Although the immediate goal of the project is to facilitate access to computer science research results, it also has the goal of producing standard protocols for search and retrieval, authentication, access control, bibliographic rights and permissions management, and image collection and storage. This initiative is funded at a level of \$2.8M for the first year, and \$2.5M for the second and third years.

A joint National Science Foundation (NSF) initiative is more research-oriented, focusing upon the technologies involved in accessing digital libraries. These include advanced software for browsing and searching information in a variety of formats, the utilization of networked databases (meaning elements of them are stored in different locations), and the capture and categorization of information in a number of formats. This is seen as an extension of NSF's support of the concept of a collaboratory, a distributed computer system with networked laboratory instruments, tools that enable a variety of collaborative activities, the resources for maintaining, evolving, and assisting in the use of computer-based facilities, and digital libraries that include tools for organizing, describing, and managing data, thus enabling the large-scale sharing of data. Phase I of this activity will be announced in July, while Phase II depends upon the outcome of congressional legislation. NSF and ARPA wish to commit \$5-6M to this for four years. Phase II would include participation from other government agencies as well as state governments and industry.

Other research initiatives will come from the Information Infrastructure Technology and Applications Program, a component of the High Performance Computing and Communications (HPCC) program which the Administration created earlier this year. Research under this program will include services necessary for the efficient operation of the National Information Infrastructure such as conventions and standards for handling data in different media, the development tools for the creation of services, and work on intelligent user interfaces. Among the areas in which these services, tools, and interfaces will be applied will be the area of digital libraries. In Fiscal Year 1994 \$96M has been requested for this new addition to the HPCC program.

Date: Wed, 23 Jun 93 17:19:22 -0400  
From: vsor@seq1.loc.gov (Virginia D. Sorkin)  
To: Barbara@wais.com  
Subject: Another LC volunteer  
Cc: mber@seq1.loc.gov, vsor@seq1.loc.gov

Barbara: Mary Bernheisel will be helping me coordinate SIGWAIS. One of the things she will be contacting you or someone at WAIS about is demos, equipment for the demos/presentations, and other details as they come up. Speaking of which, what is Brewster going to talk about in the a.m.? I know it's about WAIS, databases, etc. but a title which he would be comfortable with is needed sometime in the next week or so. Thanks, Virginia S.

WAIS Inc server  
Next - borrow one? - John  
Internet + <sup>otherwise,</sup> phone line - 1 for mac  
or

The future of WAIS - overhead